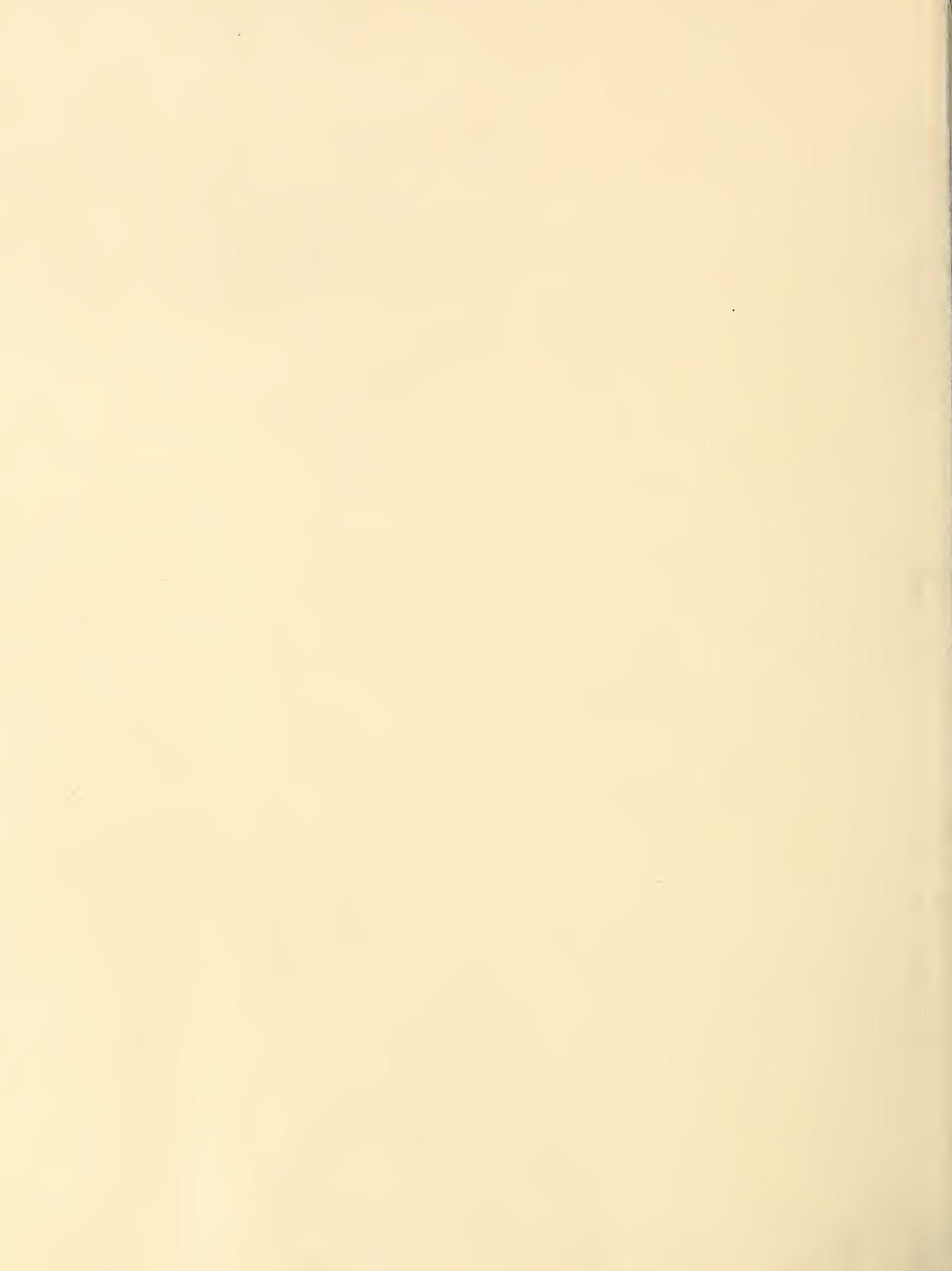


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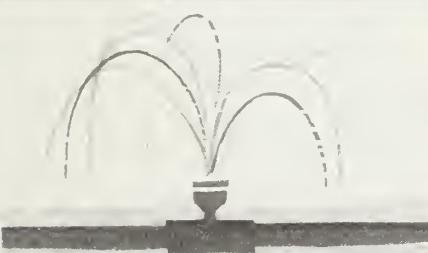
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EXTENSION SERVICE

REVIEW

U.S. DEPARTMENT OF AGRICULTURE * JULY 1967



The Extension Service Review is for Extension educators—in County, State, and Federal Extension agencies—who work directly or indirectly to help people learn how to use the newest findings in agriculture and home economics research to bring about a more abundant life for themselves and their communities.

The Review offers the Extension worker, in his role of educational leader, professional guideposts, new routes and tools for speedier, more successful endeavor. Through this exchange of methods, tried and found successful by Extension agents, the Review serves as a source of ideas and useful information on how to reach people and thus help them utilize more fully their own resources, to farm more efficiently, and to make the home and community a better place to live.

ORVILLE L. FREEMAN
Secretary of Agriculture

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The cover: Agricultural production practices which make the most of our resources—contour plowing, flood control, ground cover, irrigation, strip cropping.

Resources in Action

The Secretary of Agriculture has established six task forces through which all USDA activities will be channeled and reported. One of these task forces is concerned with resources.

The full title of the task force is "Resources in Action." The keys to concerns of this task force are the words "resources" and "action." "Resources" here generally refers to natural resources. "Action" refers to management programs applied to natural resources that will result in improvement of our total environment.

Certainly, this concept has implications for one of Cooperative Extension's major concerns—agricultural production. As applied to agricultural production, the concept implies coaxing maximum production from resources while conserving their renewable capacity to assure production for future generations.

As applied generally, the concept implies management that will preserve or increase the capacity of our resources to yield substance and enjoyment for our generation and generations to come—not merely preservation in their present states or restoration to previous states unless this adds to their capacity to yield food, fiber, and enjoyment for mankind. WJW

**New approach
for a new audience:**

Lady Landowners

by

C. Wayne Hoelscher
Farm Adviser
Stephenson County, Illinois

What is a fair lease? How much of my land should I let my tenant plant to corn? Is liquid fertilizer better than dry? Why isn't my farm making money?

These and other questions were coming to the Extension office from lady landowners in Stephenson County, Illinois. Historically, landownership has been a thing of pride and joy, but to many women it has become one headache after another.

Ownership and management have been thrust upon many women through the death of a husband or for various other reasons. Many have problems that Extension can help solve, but Extension meetings had not been directed specifically to them.

The Extension Farm Management Committee studied the statistics and discussed the situation. The county had 282 ladies who owned farms in excess of 40 acres. The size of the farms ranged from 40 to 395 acres, averaging 157 acres.

Of these 282 lady landowners, 255 lived in the county. Dairy, swine, beef feeding, and straight grain were the major enterprises.

The farm adviser contacted several lady landowners and W. Allen Bouslog, area adviser in farm management, to discuss the feasibility of a short course. As a result, a course was planned to help equip lady landowners with basic farm management information.

The course was set up for 10 a.m.-3 p. m. on three consecutive Tuesdays. Average age of the participants

was about 65, and ranged from 55 to 80.

Bouslog discussed income possibilities and alternative enterprises; professional farm management; types of leases; and investment possibilities off the farm.

The area adviser in engineering talked about grain drying and storage and other building considerations. Representatives from the Soil Conservation Service and the Agricultural Stabilization and Conservation Service explained assistance available through their agencies.

A local agronomist for a commer-

cial company discussed fertilizers, and the farm adviser discussed soil testing, the agricultural picture today, and how to select a tenant.

Some of the ideas incorporated into the course were taken from a study made by a committee of University of Illinois Farm Management specialists and Soil Conservation Service and Agricultural Stabilization and Conservation Service personnel. This study was concerned with the need for and content of an educational program for lady landowners.

Evaluation showed that every one of the women wanted to have another course. Estate planning, agricultural law, methods of selling farms, insurance programs, soil management, investment possibilities, current leasing practices, fertilizer tips, and recreation possibilities were the most wanted subjects. They suggested continuing the same kind of in-depth scheduling.

The ladies appreciated this short course just for them. They took every piece of handout material that was offered. Their unsolicited comments indicated that this is a new Extension clientele—people who want to learn. □

Allen Bouslog, area adviser, talks with three participants in the short course for lady landowners.



Rapid Adjustment Farms

—show what can be done

by
Robert L. Williams
Assistant Economist
Mississippi Extension Service



James M. Rogers, left, special Extension watershed agent, and a Rapid Adjustment farmer check young cotton to see when to apply pesticides. Cotton on this farm makes high, economical yields because of high-analysis fertilizers and good general management.

Set the goal of maximum net farm income in the shortest time possible. Gear this effort primarily for families owning small to medium-size farms typical of many in the Southern United States. See that a lot of other agricultural leaders and farm families know about it.

That is the challenge to the Rapid Adjustment Farm Program developed and conducted jointly in the Tennessee Valley States by land-grant universities and the Tennessee Valley Authority.

The idea grew out of a review in 1960 of 25 years' experience with co-operative educational programs. It recognized the need for these programs to lead in adjustments needed to keep a fast-changing agriculture efficient and economically sound.

The approach is essentially to put the latest recommended production and management practices to work on a few representative farms having potential for increased income. The

feedback of production and management practices can then be put into conventional programs.

The major role of the new activity was visualized as a learning experience for technical and professional agricultural workers. In other words, after they direct or observe changes on Rapid Adjustment farms, they can draw upon this experience in working with other farms having similar resources.

Results are gratifying to both agricultural leaders and participating farm families.

Mississippi currently has five farms in the program. The year 1966 was the fourth of participation for one of these farms, the third for another, and the second for the other three.

The average net income for these five farms for the year prior to going on the program was \$2,227. Their average net income for 1966 was \$7,435.

Selection of farms for the program begins with identifying and characterizing major adjustment problems in particular States or areas of States. Identification varies from widely recognized problems to those uncovered through more formal study by representatives of the States and TVA.

Once the problems are characterized and a decision is made to select a Rapid Adjustment farm for a geographic area, county Extension Service agents take the lead and nominate several farms as potential participants.

In Mississippi, the final selection is made by the Rapid Adjustment Committee. Represented on this committee are the Extension economics and agronomy departments, TVA, and the county Extension staff.

After the farm is selected, the effort begins to move it from its present condition to the point of maximum net income in as short a time as possible. Linear programming is used to determine what enterprise or combination of enterprises can give the result desired.

Normally two or three farm plans, with the net farm income shown for each, are presented to the farm family. The family decides which plan to follow. Then the county Extension agent responsible for the Rapid Adjustment Program in the county works closely with them to help make the adjustments called for.

Many State Extension specialists are called upon to help the family and the agent make various management decisions.

In Mississippi, the economics department of the Cooperative Extension Service is responsible for the overall supervision and coordination of the Rapid Adjustment Program.

TVA assists in the planning, provides funds to hire personnel to carry out the program, and provides a limited amount of fertilizer at no cost to the farmer. A farm will normally stay on this program for four years.

An example of the progress that is being made on all of these farms is a Grade A dairy farm in Prentiss County, Mississippi, which has been on the program for three full years. In 1963, the year prior to going on the program, this farm consisted of about 113 total acres. Today it consists of 278 acres.

The average number of cows milked on this Prentiss County farm increased from 23 in 1963 to 34 in 1966. During the same period, production rose from 4,800 pounds per cow per year to 11,712 pounds of milk per cow per year.

Total cash receipts increased from \$5,400 in 1963 to \$24,130 in 1966. Net farm income advanced from \$1,763 in 1963 to \$10,248 in 1966.

The total investment on this farm increased from less than \$20,000 in 1963 to more than \$65,000 by the end of 1966. All of this has been accomplished by the many adjustments that have taken place in the farm, plus the investment of large sums of capital.

Rapid Adjustment farms in Mississippi have been used in many farm meetings and tours held by Extension agents. Tours have also been arranged for Farmers Home Administration and Vocational Agriculture personnel.

The results of the program have been presented through farm credit clinics to various groups throughout the State, including the Mississippi Society of Farm Managers and Rural Appraisers and the Mississippi Bankers Association. The farms have also been visited by many farm families on annual tours in the area. □

Dairy herd improvement records helped this Rapid Adjustment dairy farm to greatly increase in size and profits. Studying the records are, from left, Tommy Strange, farm owner; W. T. Smith, county agent; and Williams.



Few people are satisfied with the leadership development training that is being offered to the potential leaders of tomorrow.

Alpena County, Michigan, can't say that it has the answer, but the people in the community feel that their Alpena Youth Leaders Training Conference was a step in the right direction.

The professional youth leaders recognized their failure in not offering meaningful leadership training to a significant number of teen leaders. This problem was not limited to any one of the numerous youth programs in the community.

If a better program for the youth of the community were to be developed, steps had to be taken to make the recognized teen leaders more effective in their leadership role.

Michigan State University's Cooperative Extension Service has designated its 4-H agents as 4-H Youth Agents, giving them the responsibility to work with all youth in their area.

With the tremendous pool of experience in leadership development that was available through the State 4-H Youth office, it was only natural that Extension should take the lead.

Since there was an excellent working relationship between the community school director and the 4-H youth agent, both were willing to work on developing a leadership training program and were prepared to tackle the problem as a team.

Working together, they approached the principals and superintendents of both the public and parochial high schools and received their backing. With the enthusiastic support of many of the teen leaders, development of a program got into full swing.

Meetings were held with leaders from Boy Scouts, Girl Scouts, Girls Club, Boys Club, and churches. An invitation was extended to these groups to join 4-H and school-sponsored clubs in the teen-leader training program.

By February 11, "all systems were go" and 84 youth, representing over 50 organizations and clubs, boarded

Conference provides
new experience
for Michigan youth...

Discovering Qualities of Leadership

buses provided by the school system to attend a three-day workshop.

The event was financed jointly by the youth, the organizations which they represented, the Alpena Rotary Club, and the Extension 4-H Youth program.

Traveling with them from the community were 15 adults who work with youth groups. These leaders were prepared to take an active part in the training experience.

Stepping off the buses after a four-hour ride to Camp Kett was like stepping into another world. As one delegate put it, "This is the first time that I've ever been treated as an equal by adults."

The training program, coordinated by Joe Waterson, 4-H Program Specialist from Michigan State University, employed sensitivity training techniques. For the most part, this was the teenagers' first in-depth exposure

to the responsibilities of leadership, although they were already recognized as leaders by their peers. It was fascinating to watch as each realized that being a leader was more than just being an officer.

Prior to arriving at the conference center, delegates had been assigned to discussion groups consisting of five boys and five girls.

Every effort was made to get different organizations and schools represented in each group. Each group worked with two adult trainers who were highly trained in the area of group dynamics and were sensitive to the problems of youth.

The carefully structured sessions during the first two days stressed group dynamics. The discussion group mirrored for its members, in slow motion, how groups develop, how leadership emerges, and how important each and every member of the group is.



Discussion groups such as the one above familiarized delegates with leadership problems. At right, two girls use their free time to reflect on the things they have learned.



by

Gene C. Whaples

Extension 4-H Youth Agent
Alpena County, Michigan

As one 16-year-old stated, "I learned that I am an important member of groups—that people really do want to hear me express myself. For the first time in my life, I really listened to other people."

"I discovered that a group is people working together only after they have recognized each person as a vital asset to the whole."

During the group dynamic sessions, emphasis was placed on non-verbal as well as verbal expression. Other sessions featured cross-generational discussions such as "What's Wrong With Teenagers," and "What's Wrong With Adults." For many this was the first time that they had been exposed to the opinions of the other generation.

A session on "What's Wrong With Alpena" created the feeling for need of a follow-up when they returned home. For many, the most memorable feature of the session was the ecumenical approach to religious services.

Protestants were invited to a Roman Catholic Mass during which the priest explained to the observers the significance of the various portions of the Mass.

The Catholics then joined the Protestants for a service administered by teenagers who were in attendance.

To some, the opportunity to sit quietly and reflect on leadership, their own personal worth, and their responsibilities toward others was most meaningful.

Recreational activities were woven into the program. These activities offered a break from the structured sessions, and at the same time trained the youth in recreational techniques that they could use.

The return to Alpena was full of expectation. An air of deep understanding and trust had developed among the conference participants. They were returning realizing that

something was expected of them. They returned to their community changed.

Recognizing the potential of the conference, the Alpena News reported, "Youth's idealism and capacity for commitment can make of this conference a transforming thing whose benefits could well reverberate for years in these individuals and in their community."

How do you measure change? How do you measure growth? Many organizations have reported individual changes of deeper commitment, of more responsibility, and of more maturity. There have been reports of these young people being more effective leaders.

There is a strong desire for leadership development of others in the community; plans are underway for such a program. Now we can only wait and see. □



Muskogee County Extension home economist Miss Mattye Moore, second from right, gives a hand to a sewing class at the Girard Community Action Center in Muskogee County.

by

Jack Drummond

*Associate Extension Editor
Oklahoma State University*

have ranged from advanced typing to reading and writing classes designed to eliminate illiteracy.

A good example of the latter are the very popular lessons in reupholstering and classes in sewing, canning, cooking, and related interests.

Eddie Fisher, coordinator for the center at Fort Gibson that serves about 1,500 people, says Extension's reupholstering classes have been the most popular program started at the CAP center.

"We've had more requests for additional work along this line than anything else," he says.

The classes, conducted by Muskogee County Extension home economist Miss Richard Ward, have brought about such a demand over the county that a leader's training program, also conducted by Miss Ward, now is planned.

"We hope to get one representative from each Community Action Center in the county into the training lessons," she says. "After the series of lessons is completed, we intend for these trained leaders to conduct training courses at their home centers."

Because a high percentage of those to be reached by the CAP program are homemakers from rural areas, the county Extension center receives numerous requests for assistance.

Better Jobs, Better Living

**through Extension,
CAP cooperation
in Muskogee County, Oklahoma**

Call it a helping hand, something new to think about, or maybe just an awakening to every individual's place in the world. Call it what you will, but be sure to call it successful.

It's the Community Action Program of the Muskogee County Community Action Foundation in Muskogee County, Oklahoma. The 12 centers set up since July 1966, together with enthused coordinators, hard-working directors, sincere educators, and the help of Extension, are giving new hope and new direction to many of the county's low-income residents.

The program is funded by the Office of Economic Opportunity.

The CAP, a part of the nation's war on poverty, is an important tool in improving family living and making hundreds of persons employable who previously have found barriers too large to overcome in their job-seeking experiences.

By the same token, homemakers from the communities learn new skills that mean a richer environment for their families.

As examples of the former, classes at some of the centers—for adults—

Requests from the communities range far and wide, and seem to be on the increase. "As the program grows, we seem to be getting more interest in the area of family living," says Miss Ward.

However, recreation facilities for youth, training in crafts, and even help in organizing a clean-up campaign for a local cemetery have been requested.

At Girard Center in the city of Muskogee, coordinator Gladys Meaux keeps a busy schedule of sewing classes twice a week, lessons in upholstering, and training in millinery work.

"We have finished our basic course in typing and now are arranging for an advanced course that will enable our ladies to take jobs as typists should they desire," Mrs. Meaux explains.

One of the strongest programs at the Girard Center is sewing, and Mrs. Meaux gives the local Extension home economists much of the credit for the high interest.

"We serve women of all ages here," Mrs. Meaux says. "And some of them

—both the older and the young—are sewing for the first time in their lives."

One of the outstanding examples of community cooperation in the CAP program in Muskogee County is at the Jerusalem Center where coordinator Archie Simmons proudly tells of a community garden program that has grown from two acres to an expected 20 acres before a seed has gone into the ground.

"We've had wonderful cooperation in this program," Simmons says. "We fully expect every family in the community will benefit from it."

Working closely with Simmons and the leaders at Jerusalem Center in developing the garden project has been W. C. Garrett, agricultural Extension agent.

As it is planned, the community garden will supply fresh foodstuffs for the people of the community, provide a part of the meal requirements for day care nurseries at both Jerusalem and Douglas Centers, and produce enough excess so that sales will offset the original cost, estimated to be \$150.

Land and equipment for the garden project have already been pledged.

The only expenses will be for seeds and fertilizer.

"We took samples of the soil and tested them in the Oklahoma State University Extension Center in Muskogee," Garrett says. "We believe that a program such as this could reduce the spring and summer grocery bills of folks in this community by as much as a third and help support the day care schools at the same time."

Another of the many activities at the Jerusalem Center is an adult education program for grades 9 through 12.

"We are trying to use this program as a steppingstone to prepare some of our undereducated adults for trade schools or employment," Simmons says.

Headlines on two handbills prepared by Simmons for distribution to the homes in the Jerusalem community might well be used to typify the challenge made by the Community Action Program in Muskogee county.

They read: "Are You the Life of Your Community?" and "Do You Think Our Community Has Room for Improvement?" □

Archie Simmons, left, coordinator of the Jerusalem Community Action Center, and county agricultural agent W. C. Garrett discuss the community garden program that will benefit the entire community. Hopes are that sales of extra produce will make the program completely self-supporting.



Coordinated Mass Media

Key to successful Missouri project
on life insurance in family finance

by
Mrs. Orrine Gregory
Home Economics Editor
University of Missouri

Many young people attending Extension's young couples' schools throughout Missouri in 1963 asked for more information on insurance in family financial planning. County Extension personnel didn't feel adequately trained to teach this subject matter.

Miss Mary L. Johnson, family economics specialist, consulted with Dr. Edward J. Metzen, chairman of the family economics section of the School of Home Economics at the University of Missouri.

They decided to work in such a way that the knowledge and teaching of a professor could be "stretched" to train the county Extension staff who, in turn, could serve as resource people.

A coordinated pattern of mass media use, based on results of a recent Missouri research project, was developed for "Life Insurance — Families Talk It Over."

Television was chosen as a major teaching tool, to be used in connection with a packet of study questions and guides. Since statewide educational television facilities weren't available, the information was developed on a series of five video tapes for use on commercial television sta-

Dr. Edward J. Metzen and Miss Mary L. Johnson put the finishing touches on an exhibit describing the coordination of mass media into county program planning.

tions over the State—one viewing area at a time.

The Institute of Life Insurance was a primary resource contact. The president of the Missouri Life Underwriters Association and the State director of the Division of Insurance gave additional support.

In each new viewing area, local Life Underwriters Association members, county Extension staff members, and station program directors pre-viewed 16mm film copies of the video tape series.

The project was a team approach all the way. There was contact with resident and research staff within the University. There was contact with many other departments and communication people in the University in the production of video tapes, radio tapes, and news releases.

There were synchronized bulletins and study guides, promotional flyers, and posters. Neighboring States became involved through television stations with audiences in two or more States.

There was contact with county staffs in each viewing area. There was coordination with the television production schedule of the School of Home Economics.

Counties themselves spent from 6 to 12 months on planning. All county staff members, no matter how long ahead they started, said more time was needed.

Dr. Mary Lou Rosencranz, of the University of Missouri research staff, left; the author, standing at right; and Ruth Flett, Greene County home economist, second from right, talk with interviewers in a Springfield study of the life insurance series.





Miss Johnson listed three objectives for Extension workers involved in the program:

1. Use the resource material to evaluate your own personal life insurance programs.
2. Use the information to plan programs to meet the needs of local groups.
3. Master the material so you can teach the subject matter rather than relying on resource people who might possibly use a teaching position as a place to sell insurance.

It's hard to say which really came first—the media or the methods—they were so closely related. But overall coordination and involvement of communication personnel at planning stages were important keys.

Good publications were considered basic—perhaps the heart of communication. Publications were planned and developed at the same time as radio, newspaper, magazine, and television shows. Much duplication of effort was eliminated since pictures, illustrations, and some of the same writing were used throughout.

As a forerunner to this teaching, editors worked with Miss Johnson and Dr. Metzen to make five television programs and 25 radio programs, and write five newspaper articles. A series of teaching study guides was prepared by Dr. Metzen and Miss Johnson.

The five television topics were "What Is Life Insurance?", "Types of Life Insurance," "Special Policies and

Provisions," "Sources for Buying Life Insurance," and "Programming Life Insurance for Your Family."

The project was an effort to direct the life insurance message to a specific audience—the Extension staff. Since the information was broadcast over commercial television channels, however, the programs included music, uncluttered visuals, and "tease" openings.

Though the subject matter was hard core, the treatment apparently made it suitable for widespread use with lay groups—even with low-income, low-literacy groups in metropolitan areas. Thus, the key point grew to be telling the same story in different ways, over large areas, to thousands of people.

A calendar for program planning using mass media helped county home economists see the length of time required. The goal was to use a minimum of six months for development of a plan.

Agents assumed a beginning date, then listed month by month their own work plan, setting leader training dates and media presentation dates as much as six or eight months ahead. Evaluation of the teaching effort was also included in the planning.

One mid-Missouri county took a year for planning and involved local homemakers through Extension clubs. Then all mass media channels used simultaneous release dates for greatest impact.

Eighty-five percent of the "involved audience" was reached by one or more of the media. A random sample of the "non-involved" audience indicated there was a viewing audience of 30,000. A sample from the pre-alerted groups indicated the audience was tripled through pre-planning and co-ordination.

In another area, Missouri home economists alternated every other week with Illinois Extension personnel in their television work. So the series was used over a 10-week period instead of the normal five weeks.

A Nielsen survey indicated 37,800 people watched the life insurance program. This compared to an audience of 27,000 for a popular network show on a competitive station.

"I met people in leadership positions I'd never have had reason to contact without a special project like this," said one home economist. "Now, I can call these people on other programs; so time spent on this project will benefit my whole effort as an Extension worker."

During the past two years, Extension workers in four widespread viewing areas have used the insurance series. Workers in four other viewing areas are now in the planning stages. This virtually blankets Missouri.

Several things have been learned from this venture:

1. Television can extend the teaching of the Extension and resident staff.
2. Longtime planning is necessary for maximum impact.
3. It takes an ample budget for video tapes, films, and other facilities.
4. Additional staff training is needed in coordinating television and other mass media in yearly program planning.
5. A team approach on a problem basis, rather than isolated subject matter orientation, becomes more and more essential.

Continuing research and local evaluations will help point up strengths and weaknesses of this type of mass media teaching. It could be the forerunner of a whole new field of Extension education. □



Part of the lessons in the waitress training course were presented in the form of lectures by the home economics agents. Here, the girls learn the importance of good grooming.

To help teens, tourist trade—

Waitress Training Course

Each lesson included some activity. During the class on "The Mechanics of Serving," each girl was given an opportunity to practice taking an order.



by

Mrs. Corinne F. Blaisdell
Extension Home Economics Agent
Penobscot County, Maine

An inept waitress can ruin a diner's evening and a restaurant's reputation. A skilled waitress can enhance both—and make more money.

To help meet Maine restaurants' growing need for experienced help, and to assist teenage girls in finding summer jobs, two University of Maine Extension Service agents have developed a Waitress Training Course.

Mrs. Rae Kontio of Kennebec County and Mrs. Corinne Blaisdell, Penobscot County, got the idea for the course while they were discussing the expanding teenage job market in Maine's multi-million dollar tourist industry.

Each summer Maine's restaurateurs have openings for hundreds of waitresses. But they often are frustrated in their search for trained, experienced help. Few of the girls seeking summer jobs have had any formal waitress training.



Following the rule, "The customer is king," participants in the Waitress Training Course practice serving a meal.

It was a problem seeking an answer; the Extension agents felt they could provide it.

They first obtained resource material from various sources involved with the retail selling of food and the tourist industry. The literature was carefully scrutinized and categorized into six subject areas: personal appearance; sanitation and safety; meeting the guest; mechanics of serving; pleasing the customer; and getting the job.

A teaching plan was developed by Mrs. Kontio and Mrs. Blaisdell in which the six subject matter areas were expanded. Each lesson included some activity as well as lectures, discussions, and films. Class members were urged to ask questions and were given opportunities to participate during each session.

Nuns working at a home for unwed mothers, where the course was given, sat in on the lesson and they were loaded with questions on how to order, which utensils to use, and how much to tip.

The teaching plan included use of films and other visual aids and hand-outs. True-false and multiple choice tests were given each week on the previous lesson.

Girls were encouraged to keep notebooks which would be handed in and graded along with the weekly tests. Participants were required to obtain an average score of 80 for the course in order to receive a certificate.

Recruitment of some 125 girls was done differently in the two counties. In Kennebec County participants came from a nucleus of an organized 4-H Club with friends of the members.

In Penobscot County two classes were set up through the schools in widely separated towns. School personnel were interested and extremely cooperative. They supervised enrollment and made buses available to transport the girls. Home economics and visual aids rooms were made available for activity classes, lectures, and film showings.

The course was set up on a six-week basis with one 1½-hour class each week. Course content and requirements were outlined at the first class.

In addition to preparing for the quiz, each girl was required to participate in one related activity, such as: serving one unusual dish, serving to her family, and eating out once to observe table service and surroundings as a basis for class discussion.

In order to pass the course, a girl could miss only one class. At the final class, students were asked to evaluate the course on forms provided by Extension. Two-thirds successfully completed the course and received certificates. These were presented with the intention of giving the girl something to show a prospective employer, thus increasing her chances of getting a job.

The Waitress Training Course has since been held at a home for unwed mothers in southern Maine and in a rural recreational county. Mrs. Gloria Oliver, Extension agent from Piscataquis County, conducted a similar course, with her office serving as a referral outlet for job openings.

The course is scheduled to be held in Bangor and Augusta early this year to give the girls ample time for job hunting.

Mrs. Kontio and Mrs. Blaisdell organized and taught the first series of lessons in order to learn the effectiveness of the lesson plans and response of the participants. It was noted that for maximum class efficiency not more than 25 girls should be enrolled.

After completion of the first series, the lesson plans were revised and are now in form for use by a non-professional. □



Enumerators ask many farmers about land use and livestock numbers in each field designated by USDA maps and aerial photos.

Crop Reporting-'67

by
Kent Miller
Information Specialist
Office of Management Services
USDA

Four decades of refinement and over a dozen years of intensive preparation have paid off. This summer, scientific crop survey and yield measurement programs are in full operation in the 48 States.

What started as a less than exact field-counting system conducted through the windows of moving trains in South Carolina before World War I had advanced to a stage of Congressionally endorsed research and development by 1952.

The result today is a system that can supply accurate information for forecasts of crop and livestock production by sampling farm activity on

only about six-tenths of 1 percent of the Nation's land area.

The system's two primary parts, based on probability sampling techniques, were developed and are conducted by USDA's Statistical Reporting Service. The first part, the enumerative survey, is done twice a year. In late May and early June some 100,000 farmers are asked about planted acreage, other land-use details, livestock, and farm wages and labor. A similar survey, involving fewer farmers and emphasizing livestock, is conducted in December.

The second part of the system is the objective counting and measuring

of fruits and plants in certain fields sampled in the June Enumerative Survey. Objective yield measurements, taken monthly through the growing season, help produce estimates of crop yields and production. Currently, the objective yield survey includes corn, cotton, wheat, soybeans, grapes, tobacco, and citrus crops.

Almost since it began, the national crop and livestock estimating service has relied on the efforts of thousands of voluntary farmer-reporters who periodically answer mail questionnaires about their agricultural operations.

Their responses still form the biggest component of the estimating program. However, this type of survey's built-in potential for bias, the specializing and expanding bent of today's agriculture, and the rapid rise of crop yields call for newer and more modern survey methods.

Though the rudiments of the enumerative survey and objective yield systems were laid in the 1920's, experimented with in the 1930's and 1940's, they had not reached a level of useful development until after concentrated research and pilot field projects were done in the 1950's.

These newer survey methods provide unbiased information by employing a cross-section sample of U.S. farms, regardless of size, location, or type. The advantage of the probability sampling technique is computation of a sampling error. This allows a known degree of precision in final estimates. The mail survey, since it may not be representative of all farms, does not provide the same basis for forecasts.

The June Enumerative Survey has a known sampling error averaging about 4 to 8 percent on the State level, about 2 to 3 percent for a region, and only about 1 to 2 percent for national totals.

A sampling error of 1 percent means that chances are about 2 out of 3 that the estimate arising from that sample is within 1 percent of the estimate that would have resulted if the same procedure had been used to survey all farmers rather than a small group of them.

The process begins by dividing the Nation's land into many thousands of segments. Segments average about a square mile in size—with smaller ones mostly in the East, North, and South, and larger ones in the West.

For this year's first fully coast-to-coast survey, a sample of 16,430 segments was drawn at random from the Nation's total. Segments representing all types of agriculture have a chance of being chosen for the sample.

In the Corn Belt, a State averages 350 sample segments. Southern States with their diversified agriculture each require about 425 sample segments, and Texas and California each need about 1,000 segments.

The next step is to make a detailed count of agricultural activities inside the selected segments. Here's how it might work for a typical State.

For simplicity, suppose the segments are of uniform size, are sampled at a uniform rate, and that the acreage of the State's sample segments amounts to one-half of 1 percent of the State's entire land area.

Suppose further that the enumerators' interviews with farmers operating land within the segments show that corn acreage in the segments totals 20,000 acres. This figure is multiplied by 200 (the sampling base of 0.5 percent or 1/200) to arrive at an estimated 4 million acres of corn in the State.

The process would be the same for livestock. If there were 5,000 cattle in the State's sample segments at the time of the survey, the indicated total for the State would be 1 million head.

Survey activity is closely supervised to insure reliability. Statistical theories hold up only when all crops and livestock within the selected segments are accurately counted. In our example, missing a 10-acre corn field would have caused a statewide error of 2,000 acres.

Enumerative survey data, along with details from the mail questionnaires and other sources, are analyzed by the Crop Reporting Board in Washington, D.C., to arrive at crop and livestock estimates for each State and the Nation.

The objective yield survey involves the measurement of crop development in small plots within some of the sample fields earlier chosen for the enumerative survey. Enumerators locate and mark the plots according to specific instructions and measurements.

Each month of the growing season they count, measure, and collect other details about soybean pods, wheat heads, ears of corn, or cotton bolls growing inside the plots.

Research has determined the size of the plots: For wheat, 3 drill rows 24 $\frac{1}{4}$ inches long; for soybeans, a 2-row section 3 feet long; for corn, a 2-row section 15 feet long; and for cotton, a double-row section 10 feet long.

Such small plots for measurement each month not only permit close scrutiny of plant development; they also allow a rather large number of samplings for each crop.

Last year, for example, there were sample plots in 1,850 wheat fields in 15 States, 1,200 soybean fields in 11 States, 3,300 corn fields in 29 States, and 2,600 cotton fields in 14 States.

Substantiating the objective yield survey are studies which show that the size or stage of development of fruit for a crop at a particular time of the season affords a good indication of probable yield per acre. And, because selection of all plots and segments is based on probability sampling, it's possible to estimate the crop for the country.

Experimentation for many years with objective measurements, enumerative techniques, and scientific sampling has culminated in use on a national scale this summer.

The newer systems, together with the mail questionnaire surveys, produce data for unbiased estimates needed by today's agricultural producers and buyers. □

Much of the data from crop reporters and enumerative and objective yield surveys, along with other commodity information, is funneled through electronic computers for more rapid farm facts.



From The Administrator's Desk

Facts—a Challenge to Extension

An effective Cooperative Extension Service in the year 2,000—Yes, there will be one, and it will be more effective, both for economic and non-economic progress in this country and throughout the world, than in any previous era. Many thought Cooperative Extension Service would not work in 1914, but it did. A few skeptics and competitors today say it is not working well, but it is. It's our responsibility to show them it is working.

In concept, Extension is simple. In practice it's precise and specific. In spirit and in intent it believes in people and in service to people. In essence, it is people, helping themselves to help others to help themselves. It is a people-motivating process.

Extension is getting the RIGHT facts to the RIGHT people at the RIGHT time for the RIGHT situation. But that's one side of the coin. On the other side people have to be willing to take the information and use it. And on this side Extension sometimes has to motivate them to seek and use the information—for only when used is information productive.

No information is low productivity, disaster, and death. "A little information is dangerous." Too much information in the minds of too few is inequity and often revolution. An adequate amount of good information, well used, means evolution and progress.

Extension's knowledge base is the best it has ever been and is increasing in geometric proportions.

One of Extension's major products is organized channels

to bring facts and knowledge to people who can use them now. It builds a base for more knowledge tomorrow and confidence of people.

Knowledge and facts—like happiness and satisfaction—cannot be bought. Opportunities for getting, evaluating, and using facts and information can be bought and must be provided for all. Extension's concept of "learning-by-doing" has proven to be man's best-known technique for presenting opportunities to learn. Even it is most effective when constantly reinforced by new and modern techniques and equipment.

We learn best when we have to. It would appear that the time has come when we *have* to. For equity, for progress and evolution, rather than revolution, the time is here when Extension principles need even widespread application. It is time for those who have facts, information, and understanding to insist that Extension reach out—reach out through, with, by, and for those who need help. The philosophy, "Let someone else do it," will never be an effective substitute for "learn-by-doing."

Extension has facts and information that many people need and can use. Extension understands that we must get acceptance of the "learn-by-doing" concept and that people grow through doing. Doers for others become doers themselves.

The Extension concept is simple. The more people there are, the greater the need for Cooperative Extension Service. □ *N. P. Ralston, Deputy Administrator*